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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,399

11/25/2003

Masahiro Inomata

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KILYK & BOWERSOX, P.L.L.C.
400 HOLIDAY COURT
SUITE 102
WARRENTON, VA 20186

EXAMINER

MARIAM, DANIEL G

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,399

Applicant(s)

INOMATA, MASAHIRO

Examiner

DANIEL G. MARIAM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner's Note

1. Examiner has cited particular columns and line numbers or figures in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsuji (6,906,794).

With regard to claim 1, Tsuji discloses a magnifying observation apparatus (See for example, Fig. 1: item 60) comprising: an imaging section, i.e., imaging device, for photographing an observation image, i.e., semiconductor wafer image, a display section for displaying the observation image based on an image signal acquired with said imaging section,

an edge detection section, i.e., edge defect processing section, for performing signal processing on the image signal acquired with said imaging section and detecting edge information on an edge contained in the observation image, a point indication section for indicating an arbitrary point in the observation image displayed with said display section, an edge extraction section for extracting an edge section on the periphery of the point indicated with said point indication section, i.e., edges A, B, C, and D, based on the edge information on the observation image (See for example, col. 8, line 4 – col. 8, line 49); and a highlight section, i.e., displaying in different colorings or clicking a portion of the image/edge with a pointer, for performing predetermined image processing, i.e., defect processing and/or magnifying/enlarging the image, on the edge section extracted with said edge extraction section and displaying the resulting edge section over the observation image (See for example, col. 9, lines 50-67).

With regard claim 2, a magnifying observation apparatus according to claim 1, wherein said edge detection section performs arithmetic operation, i.e., area calculation, of geometric information, i.e., x-y coordinates, on the detected edge section, and displays the geometric information on said display section (See for example, Fig. 9; and col. 9, line 60 – col. 10, line 28).

With regard to claim 3, a magnifying observation apparatus according to claim 1, wherein said edge detection section detects only the section matching a predetermined pattern in the edge information contained in the observation image (See for example, col. 8, lines 53-59).

With regard to claim 4, a magnifying observation apparatus according to claim 3, wherein said predetermined pattern is at least one of a straight line, a circle, and an arc (See for example, Fig. 7).

With regard to claim 5, a magnifying observation apparatus according to claim 1, further comprising: an arithmetic operation section for executing predetermined arithmetic operation based on the extracted edge section (See for example, Fig. 9).

With regard to claim 6, a magnifying observation apparatus according to claim 5, wherein said point indication section indicates a plurality of points, i.e., A, B, C, and D, in a single observation image to select a plurality of edge sections and said edge extraction section extracts the respective edge sections corresponding to these points, and wherein said arithmetic operation section executes predetermined arithmetic operation based on the selected edge sections and display the result of arithmetic operation on said display section (See for example, col. 9, lines 55-67).

With regard to claim 7, claim 1 encompasses the limitation of this claim except claim 7 is directed to a method claim. Thus, argument similar to that presented above for claim 1 is applicable to claim 7.

Claims 8, 9, 10, 11, and 12 are rejected the same as claims 2, 3, 4, 5, and 6 respectively except claims 8, 9, 10, 11, and 12 directed to method claims. Thus, arguments similar to those presented above for claims 2, 3, 4, 5, and 6 are applicable to claims 8, 9, 10, 11, and 12.

Claim 13 is rejected the same as claim 7. Thus, argument analogous to that presented above for claim 7 is applicable to claim 13. With regard to a computer-readable medium storing

instructions for operating the magnifying observation apparatus an imaging section for photographing an observation image and a display section for displaying the observation image based on an image signal acquired with said imaging section (See for example, Fig. 2; and col. 4, lines 38-40).

Claims 14 and 15 are rejected the same as claims 8 and 11 respectively. Thus, arguments similar to those presented above for claims 8 and 11 are respectively applicable to claims 14 and 15.

Conclusion


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5,384,654 and 5,417,210 (See for example, col. 15, line 3 – col. 17, line 24), and a us Patent Application Publication No. 2001/0006571.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

June 18, 2007